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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,255	08/22/2005	Hideyo Kikuchi	1034185-000057	2936
21839 7590 06/10/2010 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404				
EXAMINER KASHNIKOW, ERIK				
ART UNIT 1782		PAPER NUMBER		
NOTIFICATION DATE 06/10/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/520,255

**Applicant(s)**

KIKUCHI, HIDEYO

**Examiner**

ERIK KASHNIKOV

**Art Unit**

1782

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7 and 12-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7 and 12-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI.08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Interval Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 20 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification has support for the printing of the design occurring before or after the joining but not during (paragraph 0054 of the publication of the instant application).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 16-19, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swartz et al. (US 5,993,593) in view of Katayama et al. (US 6,044,628) and Aoki 4,007,078).

5. In regards to claims 7, 18 and 19 Swartz et al. teach a multilayer sheet (column 9 lines 42-45) comprising an outermost layer of thermoplastic resin (column 9 lines 20-23) wherein a metal containing ink is printed on specific areas where a seal is to be formed by [http://www.internet4classrooms.com/msword\\_keyboard\\_ibm.htm](http://www.internet4classrooms.com/msword_keyboard_ibm.htm) induction heating (column 7 lines 35-50). Swartz et al. further teach that imprint a design directly on the device, while it is silent regarding the imprinting being on the outer surface, one of ordinary skill in the art at the time of the invention would realize that putting the imprint on the outer surface would make it easier for someone to see marketing on the package or information as to what is contained in said package.
6. In regards to claims 16, 17 and 25 absent a showing of criticality with respect to "concentration of metal filler in the ink" (a result effective variable), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the "concentration of the metal filler in the ink" through routine experimentation to values, including those presently claimed in order to achieve "an ink with appropriate conductive properties that can seal the polymer layers effectively". It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).
7. As stated above Swartz et al. teach packages formed by induction heating wherein ink is printed only on the areas that need sealing, however they are silent with regards to webs being formed, delivering web formed layers successively as well as forming a longer web support layer.

8. In regards to claims 7 Katayama et al. teach a process for forming food packages (column 1 lines 7-14). Katayama et al. teach a method for forming webs wherein a plurality of support layer is wound around a roll (column 5 lines 14-18). Katayama et al. teach that the seals at the ends may be formed by induction heating involving a metal foil layer at specific zones (column 6 lines 24-36). Katayama et al. teach that the web like material may comprise a variety of layers which may act as a support layer and an inner polyolefin layer (column 1 lines 45-50).

9. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Swartz et al. with that of Katayama et al. because the invention of Katayama et al. would offer a reduced amount of and possible elimination of defects in the film, and as an extension of that the final products (column 2 lines 58-63).

10. As disclosed above Swartz et al. and Katayama et al. teach packages formed by induction heating wherein ink is printed only on the areas that need sealing, webs being formed, delivering web formed layers successively however they are silent with regards forming a longer web support layer.

11. Aoki et al. teach a method of continuously forming a film strip of thermoplastic resin to form packaging materials (column 1 lines 6-12).

12. In regards to claims 7 and 18 Aoki et al. teach sealing a trailing edge of one strip to a leading edge of another strip (claim 1). While Aoki et al. are silent with regards to cut ends and cut end faces it is noted that it is the two ends of the strips that are being joined together (column 6 lines 59-65). While it is silent with regards to the ends being cut end faces, one of ordinary skill in the art would recognize that an end of a strip

would have the same look and properties as a cut end strip, i.e. the portion of a strip where said strip ends and has a top bottom that end at a 3 common sides.

13. In regards to claim 20 it is noted that while Swartz et al. are silent with regards to the printing taking place simultaneously with the joining process, it has been found that selection in any order of processing steps is a *prima facie* obvious in the absence of new or unexpected results (MPEP 2144.04).

14. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Swartz et al. and Katayama with that of Aoki et al. because the invention of Aoki et al. offers increased product production efficiency and there for an economic benefit.

15. Claims 13-15 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swartz et al. (US 5,993,593) in view of Katayama et al. (US 6,044,628) and Aoki (4,007,078) and Ehrreich (US 4,683,082).

16. As stated above Swartz et al., Katayama and Aoki et al. teach packages formed by induction heating wherein ink is printed only on the areas that need sealing, however they are silent with regards to the type of metal in the ink as well as the form of the metal.

17. In regards to claims 13-15 and 22-24 Ehrreich teaches conductive inks which comprise silver flakes (claim 8 and column 8 lines 54-60).

18. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Swartz et al., Aoki et al. and Katayama et al. with that of

Ehrreich et al. because the invention of Ehrreich et al. offers the ability to be stored for a long period of time without decay of the conductive ink, specifically increases in resistivity (column 2 lines 20-25).

19. Claims 12, 13, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swartz et al. (US 5,993,593) in view of Katayama et al. (US 6,044,628) Aoki 4,007,078) and Xiao (US 6,322,620).

20. As stated above Swartz et al. Katayama et al. and Aoki et al. teach packages formed by induction heating wherein ink is printed only on the areas that need sealing, however they are silent with regards to the type of metal in the ink.

21. In regards to claims 12, 13, 21 and 22 Xiao teaches that the metals found in conductive inks are often silver coated aluminum (claim 4).

22. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Swartz et al., Aoki et al and Katayama et al. with that of Xiao because the invention of Xiao offers advantageous shelf life and curing and drying time and temperatures (column 2 lines 10-17).

### ***Response to Arguments***

23. In regards to Applicant's arguments regarding claim 7 it is noted that as pointed to in the previous office action does disclose wherein a trailing end is sealed to a

leading end of a film strip (claim 1, column 6 lines 55-65). It is noted that these are two imperfect film strips, as described by the claim, and are wound after formation. This strip is not cut after formation.

24.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is (571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (Second Friday off).



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner  
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/Rena L. Dye/  
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